#### **CSAM Line of Business**

# NIST 800-53 Revision 4 Migration Workshop U.S. Department of Agriculture



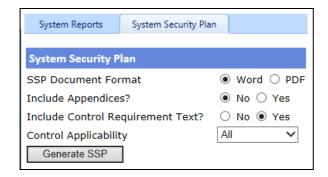
# **Background / Purpose**

- In an effort to support CSAM LOB partners with migrating systems and controls to NIST 800-53 Rev4, a workshop has been developed to support components with training. The workshop will address the following topics:
  - Capture Current Environment
  - Levels of Migration (System vs Control)
  - Consideration for Control Set Migration
  - Migration Impact to Control Inheritance
  - System Level Migration & Impacts
  - Control Level Migration & Impact
    - Post Migration Utilities



# Capture Current Environment – Generate Reports

- Although the migration process archives all of your results we recommend:
  - To get a snapshot of your systems current state it is suggested to generate a System Security Plan (SSP)
  - Generate a Security Assessment Report (SAR) to capture your latest testing results
  - Security RTM Report
  - Common Control Inheritance Report for a summary of inherited controls
  - Offered Common Control Report for a summary of offered controls
  - System Implementation Statements
     Query will capture all of your current implementation statements.







# **Levels of Control Set Migration**

- The Department will enable the new control set.
- Once enabled, two levels of migration are required:
  - System level migration
  - Control level migration

# Department

System

Control



# **Control Set Migration – System Level**

CSAM has the capability to allow systems to straddle multiple control sets. As a result, organizations may migrate their programs, systems and controls strategically to the new control set that fits their needs/schedule

- Identify programs/systems that offer controls to other systems (i.e. programs or parent systems)
- As a strategy consider migrating from the top down

Common Control Programs, Sites

Offering Systems

System



# **Control Set Migration – Control Level**

Once systems have been identified (and migrated), the next step is to identify the controls that should be considered for migration.

- Identify controls that are offered for inheritance to other systems
- Identify controls that are fully applicable; AND
- Identify controls that must be assessed in the near term (1-2 months).
- As a strategy consider migrating from the top down

Fully
Applicable

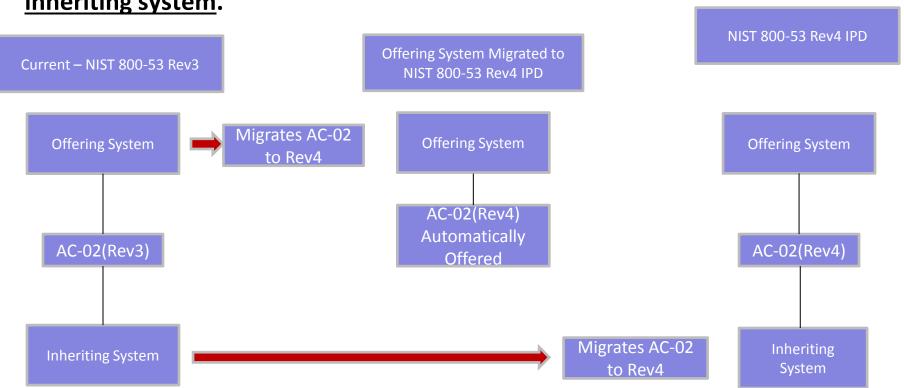
Requires
Assessment

**Note:** It is highly recommended that Components/Agencies **identify controls that are fully inherited or hybrid, and plan to migrate these controls last.** Due to inheritance relationships, the control should wait to migrate until the offering system(s) have migrated the offered control to NIST 800-53 Revision 4.



#### **Migration Impact to Control Inheritance**

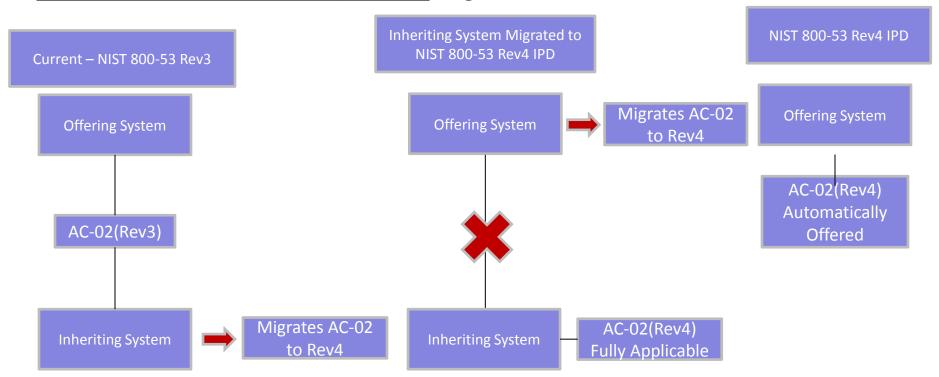
• The most beneficial scenario is when the Offering System migrates before inheriting system.





#### **Migration Impact to Control Inheritance**

 The <u>least effective</u> scenario is when the <u>inheriting system migrates the</u> <u>control BEFORE the offering system</u> migrates the control.

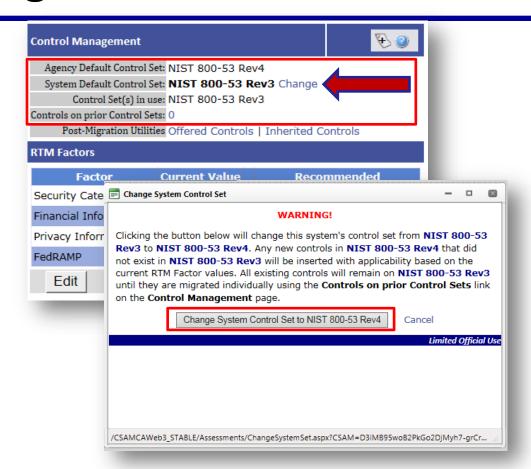


• <u>Control inheritance will be **removed**</u> if the inheriting system migrates the control BEFORE the offering system migrates the control. As a result, <u>further action</u> will be required by the inheriting system, <u>to re-inherit the control</u> after the offering system migrates the control to NIST 800-53 Rev4.



# **System Level Migration**

- Once the 800-53 Rev4 is enabled, system level migration can be performed.
- From the Control
   Management page, an
   option to change the
   control set will be
   provided.

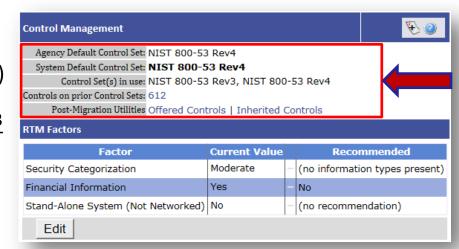


<u>Important Note:</u> Once a system is migrated to a new control set, the system is <u>NOT ABLE</u> to migrate back to a previous control set. There is no "roll back" capability for a system if a system migrates to the NIST 800-53 Revision 4 prematurely.



# **System Level Migration Impact**

- Once a system is migrated the following occurs:
  - New controls in the NIST 800-53 Rev4 control set (i.e. the delta from 800-53 Rev3) become available
    - For example, AC-6(9) does not exist in the Rev3 control set. When a *system* is migrated to NIST 800-53 Rev4, the AC-6(9) control will be made available.
    - DOJ FY15 Core Controls
  - RTM logic is applied per the NIST baseline
    - New controls are made applicable
      - ■NIST 800-53 Rev4 baseline notes AC-6(9) is applicable for moderate and high systems.
      - □ Therefore, when the *system* is migrated, the AC-6(9) control will be listed as **applicable for a** moderate or high system and not applicable for a low system





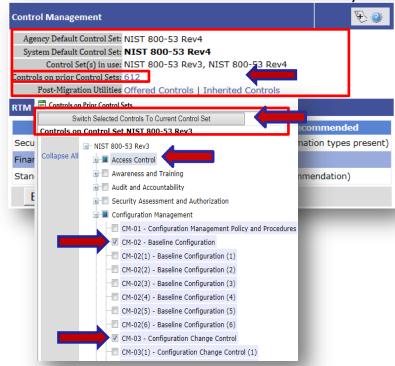
# **Control Level Migration**

Once a system has been migrated to the NIST 800-53 Revision 4 control set, *existing controls* on the system from previous control sets (e.g., controls from the NIST 800-53 Revision 3 control set) will be

available for migration.

 CSAM allows for multiple controls to be migrated at once and/or for controls to be migrated individually.

- Use discretion when converting controls to avoid rapid drop in control implementation
- <u>Select controls</u> for migration and thereafter <u>click the 'Switch Selected</u> Controls to Current Control Set' button.

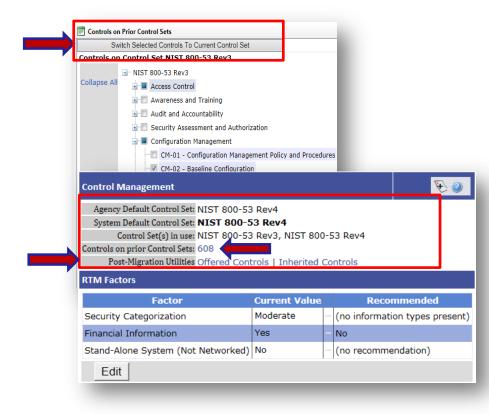


<u>Important Note</u>: Once a *control* is migrated to a new control set, the *control* is <u>NOT ABLE</u> to migrate back to a previous control set. There is no "roll back" capability for a control if it is migrated to the NIST 800-53 Revision 4 prematurely.



# **Control Level Migration Impact**

- Once a control is switched to the Current Control set the following occurs:
  - Control assessment information is archived.
    - Implementation Status is reset to 'Not Implemented.'
  - RTM logic is applied per the NIST baseline
    - Tailored controls may be made applicable or not-applicable
  - Withdrawn (i.e. deprecated)
     controls will be archived
  - <u>Post-Migration Utilities</u> will be populated

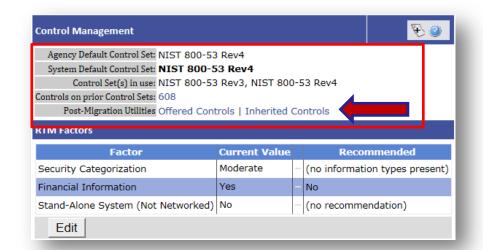


<u>Important Note</u>: Withdrawn (i.e. deprecated) controls will no longer be accessible through the CSAM interface, once a control is migrated and effectively withdrawn/deprecated.



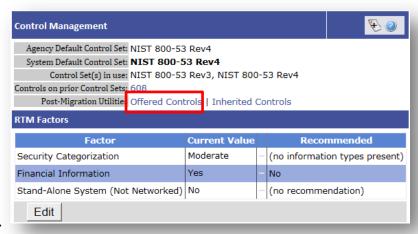
#### **Control Level Migration: Post-Migration Utilities**

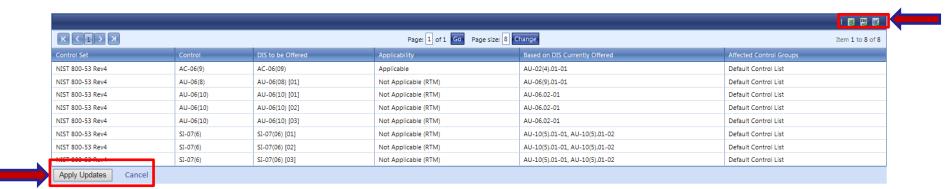
- Post-Migration Utilities allow systems to migrate inheritance from previous control sets.
  - Offered Controls
  - Inherited Controls
- Lets you view inheritance mapping between control sets.





- Post-Migration Utilities
  - Offered Controls:
    - Displays controls that were being offered in the previous control set that have been migrated to NIST 800-53 Rev4
    - List can be exported to Excel/Word
    - Apply Updates will automatically add the NIST 800-53 Rev4 controls listed to the Offer Control for Inheritance list.





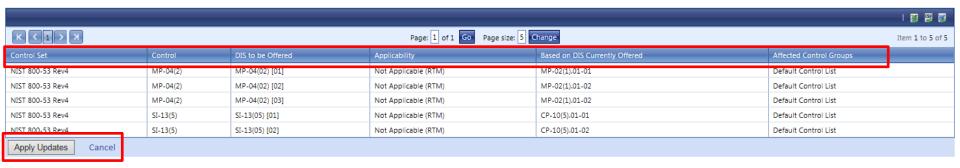


#### Offered Controls can be exported and saved for historical purposes

	А	В	С	D	Е	F
1	Control Set	Control	DIS to be Offered	Applicability	Based on DIS Currently Offered	Affected Control Groups
2	NIST 800-53 Rev4	AC-06(9)	AC-06(09)	Applicable	AU-02(4).01-01	Default Control List
3	NIST 800-53 Rev4	AU-06(8)	AU-06(08) [01]	Not Applicable (RTM)	AU-06(9).01-01	Default Control List
4	NIST 800-53 Rev4	AU-06(10)	AU-06(10) [01]	Not Applicable (RTM)	AU-06.02-01	Default Control List
5	NIST 800-53 Rev4	AU-06(10)	AU-06(10) [02]	Not Applicable (RTM)	AU-06.02-01	Default Control List
6	NIST 800-53 Rev4	AU-06(10)	AU-06(10) [03]	Not Applicable (RTM)	AU-06.02-01	Default Control List
7	NIST 800-53 Rev4	SI-07(6)	SI-07(06) [01]	Not Applicable (RTM)	AU-10(5).01-01, AU-10(5).01-02	Default Control List
8	NIST 800-53 Rev4	SI-07(6)	SI-07(06) [02]	Not Applicable (RTM)	AU-10(5).01-01, AU-10(5).01-02	Default Control List
9	NIST 800-53 Rev4	SI-07(6)	SI-07(06) [03]	Not Applicable (RTM)	AU-10(5).01-01, AU-10(5).01-02	Default Control List



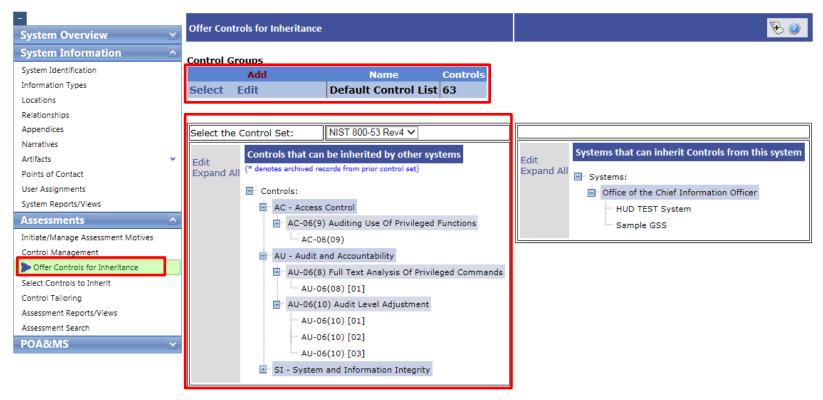
- Control Set: Displays current control set
- Control: The control that <u>will be</u> offered by the post migration utility (NIST 800-53 Rev4)
- DIS to be Offered: The determine-if-statement (DIS) that will be offered (NIST 800-53 Rev4)
- Applicability: The current control applicability, prior to post migration utility (Applicable, Hybrid, or N/A)
- Based on DIS Currently Offered: The DIS from the previous control set <u>that was</u> being offered
- Affected Control Groups: The Control Group in which the control/DIS was offered.



 Apply Updates will automatically offer the listed NIST 800-53 Rev 4 controls/DIS

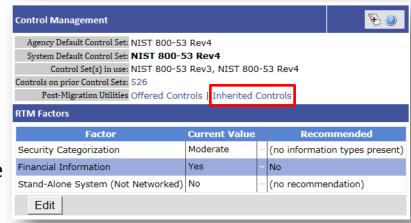


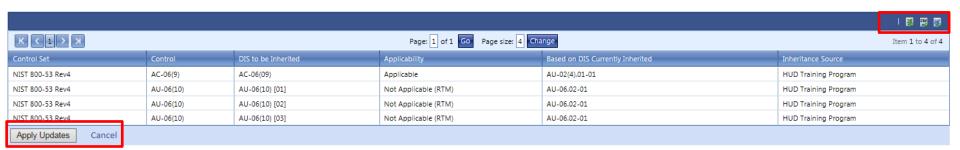
 After applying the post migration offered control utility, the system's Offered Controls for Inheritance page will be populated for the NIST 800-53 Rev4 control set.





- Post-Migration Utilities
  - o Inherited Controls:
    - Displays controls that were being inherited in the previous control set, where the offering system has already migrated the inherited control to the NIST 800-53 Rev4
    - List can be exported to Excel/Word
    - Apply Updates will automatically inherit the NIST 800-53 Rev4 controls listed and be added to the Select Controls to Inherit list.





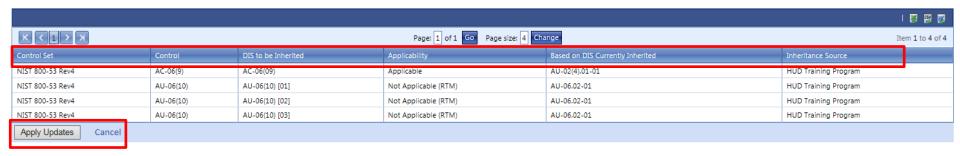


#### Inherited Controls can be exported and saved for historical purposes

	A10 •	f <sub>x</sub>				
1	А	В	С	D	E	F
1	Control Set	Control	DIS to be Inherited	Applicability	Based on DIS Currently Inherited	Inheritance Source
2	NIST 800-53 Rev4	AC-06(9)	AC-06(09)	Applicable	AU-02(4).01-01	HUD Training Program
3	NIST 800-53 Rev4	AU-06(10)	AU-06(10) [01]	Not Applicable (RTM)	AU-06.02-01	HUD Training Program
4	NIST 800-53 Rev4	AU-06(10)	AU-06(10) [02]	Not Applicable (RTM)	AU-06.02-01	HUD Training Program
5	NIST 800-53 Rev4	AU-06(10)	AU-06(10) [03]	Not Applicable (RTM)	AU-06.02-01	HUD Training Program



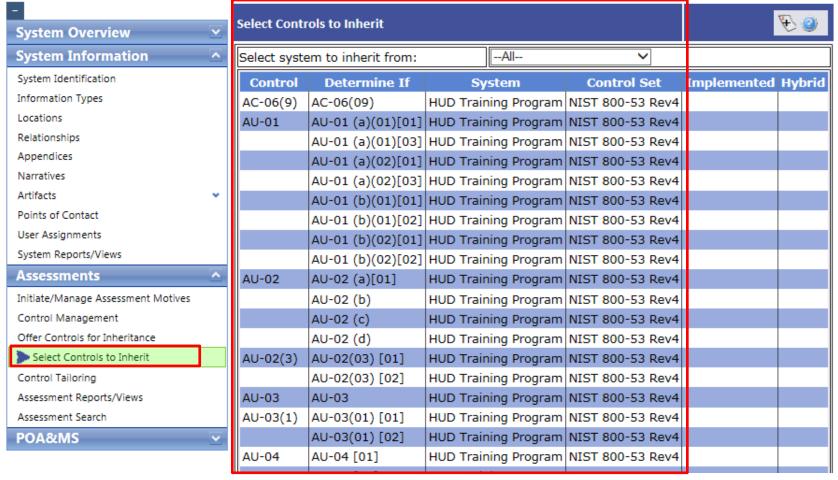
- Control Set: Displays current control set
- Control: The control that <u>will be</u> inherited by the post migration utility (NIST 800-53 Rev4)
- **DIS to be Inherited**: The DIS that <u>will be</u> inherited (NIST 800-53 Rev4)
- Applicability: The current control applicability, prior to post migration utility (Applicable, Hybrid, or N/A)
- Based on DIS Currently Inherited: The DIS from the previous control set <u>that was</u> being inherited
- Inheritance Source: The system, from which, the control/DIS was previously inheriting.



 Apply Updates will automatically inherit the listed NIST 800-53 Rev 4 controls/DIS



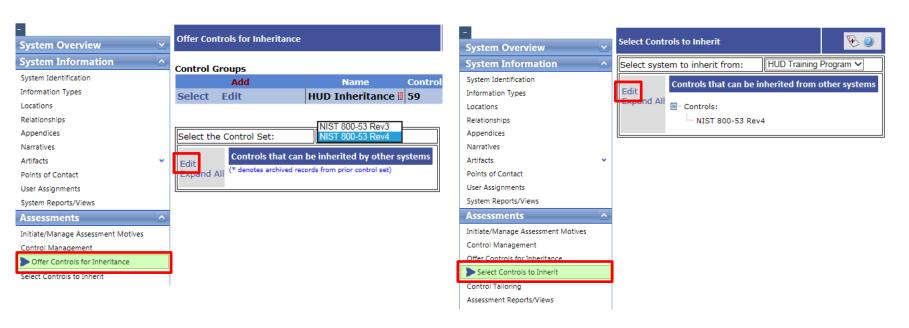
 After applying the post migration inherited control utility, the system's Select Controls to Inherit page will be populated for the NIST 800-53 Rev4 control set.





#### **Control Level Migration: Post-Migration Utilities**

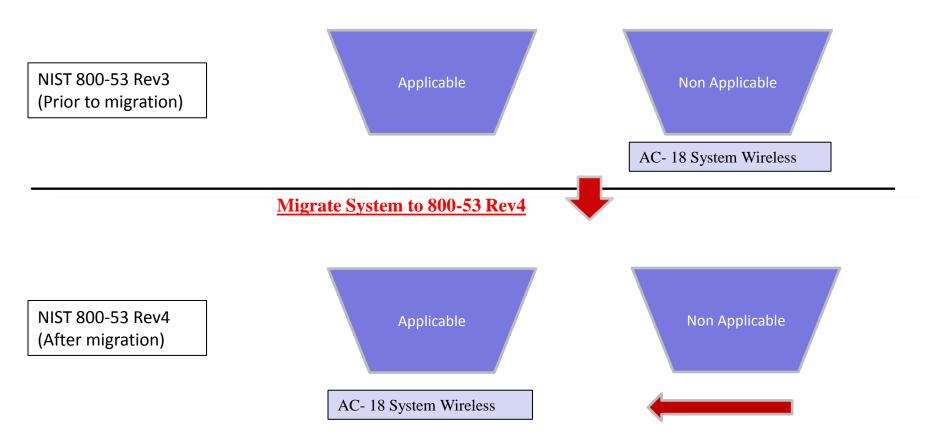
- If you do not use Post-Migration Utilities:
  - •Offered Controls: Users will manually have to Offer Control For Inheritance, and add newly migrated NIST 800-53 Rev4 controls to an offered control group.
  - Inherited Controls: Users will manually have to **Select Controls to Inherit** and re-inherit the newly migrated NIST 800-53 Rev4 controls
    - Note: NIST 800-53 Rev4 controls will only display if the Offering System has migrated to NIST 800-53 Rev4.





# **RTM Impact After Control Level Migration**

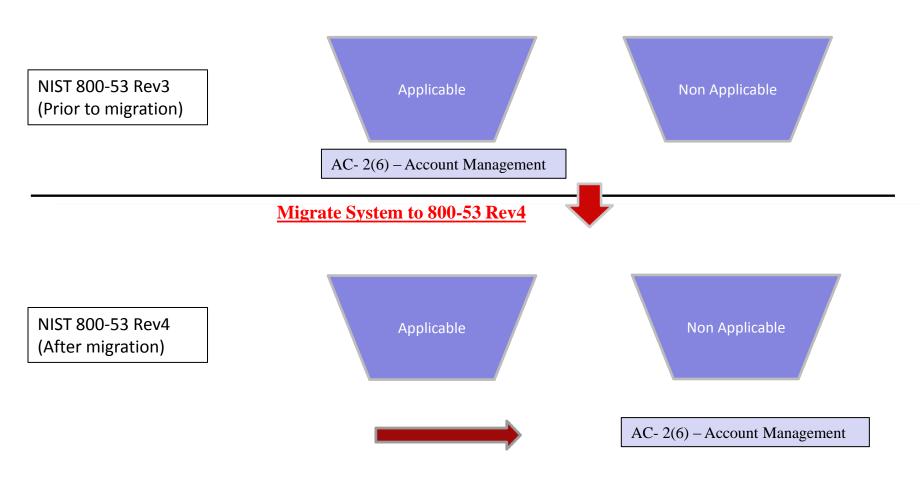
Applicable controls that have been <u>tailored out</u> will be **moved** back to applicable; this allows for re-evaluation.





# **RTM Impact After Control Level Migration**

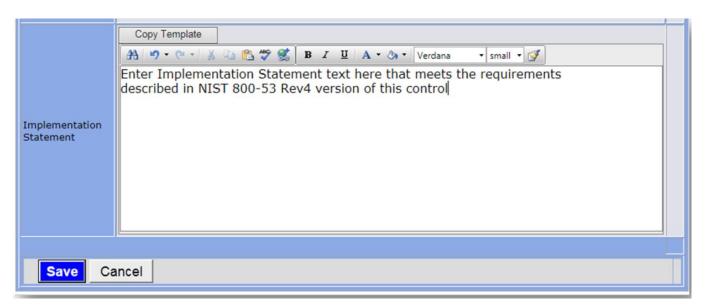
Similarly, not applicable controls that have been <u>tailored in</u> will be moved back to not applicable; this allows for re-evaluation.





#### **Implementation Statements**

- After the control has been converted, alter the statement if necessary to align with the new control language.
- **NOTE:** The Implementation Statement, previously recorded on the control (in NIST 800-53 Rev3) will remain in-tact and will be automatically listed as the implementation statement for the migrated (NIST 800-53 Rev4) control.



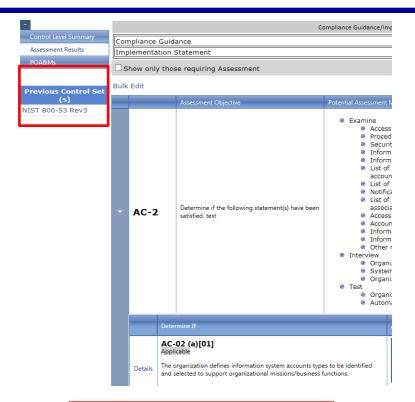


# **Accessing Archived Assessments**

 Previous control set testing results will be archived

 In addition, within each control set each testing instance is preserved

List View





AC-02.01-01

Previous

The organization manages information system accounts, including; - identifying account types (i.e., individual, group, system, application, guest/anonymous, and temporary); - establishing conditions for group membership; - identifying authorized users of the information system and specifying access privileges; - requiring appropriate approvals for requests to establish accounts; - establishing, activating, modifying, disabling, and removing accounts; - specifically authorizing and monitoring the use of guest/anonymous and temporary accounts; - notifying account managers when temporary accounts are no longer required and when information system users are terminated, transferred, or information system usage or need-to-know/need-to-share changes; - deactivating: i) temporary accounts that are no longer required; and ii) accounts of terminated or transferred users; and - granting access to the system based on: - a valid access authorization; - intended system usage; and - other attributes as required by the organization or associated missions/business functions;

AC-02.01-01 V

Next